

What is claimed is:

1. Method for producing a fragrance and/or aroma composition,  
characterized by using a composition database that is comprised of  
5 recipe vectors and attribute vectors associated with a group of base  
compositions that can be manufactured by mixing predetermined substance  
components, whereby each recipe vector specifies the proportions of the  
substance components that are required for the creation of the associated base  
composition and whereby each attribute vector specifies the evaluation results  
10 with regard to selected sensory attributes of the associated base composition,  
and whereby the method consists of the following steps:
  - a) specifying a target attribute vector;
  - 15 b) determining an operator which effects a transformation from recipe  
vectors to attribute vectors at least in a surrounding of the target attribute  
vector;
  - c) establishing a target recipe vector with the proviso that it is transformed to the  
20 target attribute vector by using said operator;
  - d) mixing the predetermined substance components with proportions  
according to the target recipe vector.
- 25 2. Method according to claim 1, characterized by the fact that the composition  
database is produced by the following steps:

- a) preparing the group of base compositions by mixing the substance components in proportions according to a recipe vector that is associated to each base composition;

5        b) quantitatively evaluating each one of the base compositions with regard to the selected sensory attributes and creation of the associated attribute vector; and

10      c) creating the composition database by storing the recipe vectors and attribute vectors in such a way that the vectors that are associated to each base composition can be retrieved in relation to one another and to the base composition.

3. Method according to claim 1 or 2, characterized by the fact that the evaluation of the sensory attributes is based on quantitative descriptive analysis.

15      4. Method according to one of the claims 1 to 3, characterized by the fact that the attributes used to create the attribute vectors are selected by means of a factor analysis.

20      5. Method according to one of the claims 1 to 4, characterized by the fact that the operator is established by means of multiple regression and/or neuronal networks and/or an expert system.

25      6. Method according to one of the claims 1 to 5, characterized by the fact that the target recipe vector is determined by means of statistical test planning.

7. Method according to one of the claims 1 to 6, characterized by the fact that the target attribute vector is determined through the attribute evaluation of a predetermined composition.
- 5        8. Method according to one of the claims 1 to 7, characterized by the fact that attribute vectors are represented in the form of polar diagrams.
9. Device for carrying out the method according to one of the claims 1 to 8, with a data processing unit (2), as well as with a mixing device (4) that is controlled by it, whereby the data processing unit (2) comprises means for the entry, storage and retrieval of at least one composition database, as well as means for the entry of attribute vectors, means for the calculation of target recipe vectors and means for the transfer of control signals that are shaped according to the recipe vectors to mixing device (4), and whereby mixing device (4) features the following components:
  - a) a plurality of storage containers (6, 6a) that can be filled with individual substance components;
  - 20        b) a plurality of receptacles (8, 8a, 8b, 8c);
  - c) a controllable feeding device (10) in order to bring predetermined quantities of individual substance components from the corresponding storage containers (6, 6a) to the receptacles (8, 8a, 8b, 8c) for the creation of a fragrance and/or aroma composition.
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